

Measuring the Prevalence of High Impact Practices in Biological Science majors at a Large Comprehensive University

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Abstract

An increasing number of schools in higher education have adopted Kuh (2008)'s high impact educational practices (HIPs) within their curriculum. Kuh (2008) has identified ten HIPs, such as first year seminars and undergraduate research.² The ten HIPs have been found to enhance student learning, improve academic performance, show greater student engagement, and a greater persistence to graduation.^{4,5} However, a number of students go through university without having to take part in labs, presentations, or major research projects and it's up to the institution to determine whether students are participating in these opportunities.^{3,4} Forty-five Ontario universities and colleges have signed a Strategic Mandate Agreement.¹ The 2014-2017 agreement prioritizes the collection of baseline data on students' HIP engagement and ensuring that students participate in ≥ 2 HIPs by graduation.⁶

Surveys such as the National Survey of Student Engagement (NSSE) is one method to measure HIP engagement.³ However, Kuh recommends that an institutional survey in combination with NSSE is necessary in order to capture a campus-specific profile of educational practices.³ Following Kuh's recommendation, an online survey was developed and administered to undergraduate students enrolled in a wide stream of biological sciences majors at the University of Guelph, in semester levels 1 through 9+ to determine their participation in all ten HIPs.

In this presentation, we will share how we measured biological science students' HIP engagement using an online survey tool including some findings such as the most common HIPs experienced, where students participated in HIPs, as well as some insight on the quality of their educational experiences. This survey has the potential to be used for identifying gaps in the curriculum and quality assurance.

¹ College and University Strategic Mandate Agreements. (2017, January 18). Retrieved March 04, 2017, from <https://www.ontario.ca/page/college-and-university-strategic-mandate-agreements>

² Kuh, G. D. (2008). High-impact educational practices: What they are, who has access to them, and why they matter. Washington, DC: Association of American Colleges and Universities.

³ Kuh, G.D. (2003). What we're learning about student engagement from NSSE: benchmarks for effective educational practices. *Change: The Magazine of Higher Learning*, 35(2), 24-32.

- ⁴ Padgett, R.D., Keup, J.R., & Pascarella, E.T. (2013). The impact of first-year seminars on college students' life-long learning orientations. *Journal of Student Affairs Research and Practice*, 50(2), 133-151.
- ⁵ Pascarella, E., & Terenzini, P. (2005). *How College Affects Students A Third Decade of Research* (2nd ed.). San Francisco: Jossey-Bass.
- ⁶ Strategic Mandate Agreement. 2014-2017. The Ministry of Training, Colleges, and Universities and The University of Guelph.

Elements of Engagement

Participants will be invited to discuss and reflect on high impact practice opportunities that exist at their institution, and whether we must enact change to offer more HIP opportunities to better support student learning.